

CARDIAC RHYTHM MANAGEMENT SYSTEM WITH
OPTIMIZATION OF CARDIAC PERFORMANCE USING HEART RATE

Abstract of the Disclosure

A cardiac rhythm management device includes a dual chamber pacemaker, especially designed for treating congestive heart failure by pacing a plurality of sites. The device incorporates a program microcontroller which is operative to adjust the pacing mode and inter-site delay of the pacemaker so as to achieve optimum hemodynamic performance. Atrial cycle lengths measured during transient (immediate) time intervals following a change in the mode inter-site delay are signal processed and a determination can then be made as to which particular configuration yields the optimum performance. Performance is optimized when the patient is at rest and when the patient exercises so that a rate-adapted dynamic value of the optimum performance can be applied.